

NAVY DEPARTMENT

BUMED NEWS LETTER

a digest of timely information

Editor - Captain F. W. Farrar. (MC). U.S.N.

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TABLE OF CONTENTS

New Information on Antimalarials...2 Biological Sciences in Japan......16

Hematogenous Osteomyelitis2	Research Project F	Reports	.15			
Benadryl in Allergic States6	Power Sprayer Ava					
Endocarditis: Penicillin Therapy7	Course in Medical	Statistics	.19			
Penicillin Resistance7	Course in Island Ad					
Tuberculosis in Naval Personnel8	Fellowships in Clin					
Pyridoxine in Granulopenia12	Notices to Dental C	fficers	20			
Rocky Mountain Spotted Fever13	American Boards		21			
Cool Environment and Sleep14	American College					
DDT Toxicity: Milk Transmission14	Training in Patholo					
Necropsy Reports: Guam Natives14	Public Health Fore	ign Reports	22			
Form Letters:						
Disestablishment of Certain Naval Medical ActivitiesSecNav23						
Joint Procurement of Medical Supplies						
Alnav 416 - Destruction of Excess DrugsSecNav						
Alnay 422 - Immunization Certification SecNay						
Alnav 444 - Appointment to Dental Corps, Regular NavySec Nav						
Alnav 445 - Shortage of Dental OfficersSecNav						
Alnay 451 - Reporting of Deaths and Disposition of Remains Sec Nav 2						
Alnav 457 - Injuries of Civilian Visitors	S	SecNav	26			
Closing Out' of Cases on Sick List, 3	l December	Bu Med	26			
Photofluorographic Examinations of the Chest						
Preparation of Remains for Return from Overseas						
Venereal Disease Control: Indoctrination of Personnel						
Health Records of Released Personnel: Disposition of						
Handbook of the Hospital Corps, USN: Issuance ofBuMed						
Medical Records in Inactive Status: Dis	position of	BuMed	31			

New Information on Antimalarials. Results of Wartime Research in Malaria: An extensive program of research in the chemotherapy of malaria has been developed during the past four years. The Board for the Coordination of Malarial Studies integrates the work of university investigators with that of cooperating industrial firms and coordinates these with malarial investigations in the Army, Navy, and U.S. Public Health Service.

Immunologically it has been determined that the response of human subjects to malarial antigen has not shown promise either in the prevention or modification of the disease or in the production of complement-fixing antibodies which might be useful in differentiating between a latent infection and a cure in vivax malaria.

Chemotherapeutically, studies in the quest for more effective antimalarials have involved the screening of over fourteen thousand compounds. The practical advances emanating thus far from the program can be summarized briefly as follows:

- (1) The development of better methods for the use of quinacrine (atabrine) in the suppression and treatment of malaria, which led to the demonstration that this compound is superior to quinine. The development of an accurate method for the determination of small amounts of quinacrine in plasma permitted the collection of information on the pharmacology of the drug in experimental animals and in man, upon which was based a rational usage of the drug.
- (2) The development of compounds superior to quinacrine. Among these are several members of the 4-aminoquinoline series. In this group, SN 7618, 7-chloro-4-(4-diethylamino-1-methylbutylamino) quinoline, has received the most extensive exploration, both in civilian and military establishments. This compound is an effective suppressive, when administered no more frequently than once weekly in a well-tolerated dose. It will also cause an abrupt termination of the clinical attack of vivax malaria and will cure falciparum malaria when administered for only one or two days. In addition, it does not discolor the skin as does quinacrine, nor does it give the disagreeable gastro-intestinal symptoms which are sometimes seen with the administration of quinacrine. (Science, Jan. 4, '46)

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(Not Restricted)

The Use of Penicillin in the Treatment of Acute Hematogenous Osteomyelitis in Children: Acute hematogenous osteomyelitis is caused, in most cases, by hemolytic Staphylococcus aureus or albus, or hemolytic streptococci.

Most of the patients are children, and hence, the bones that are involved are growing.

Cases of acute hematogenous osteomyelitis should be divided into age groups for purposes of discussion or statistical analysis: (1) Under three years of age, (2) from three to 14 years, (3) from fourteen to 20 years, (4) over 20 years.

In very young children the infecting organism is most often the strepto-coccus. The initial infection may be in the nose, throat, middle ear, vaccination wound, or in the umbilicus of a newborn infant. This organism does not produce as extensive destruction of bone as does the staphylococcus. Furthermore, the bones of infants repair quickly, and persistent drainage or extensive sequestration is less common than in older patients.

Hematogenous osteomyelitis in children from three to 14 years in age is secondary in most cases to some small area of infection in the skin, such as a furuncle. Bacteremia or septicemia may result and lead to localization in one or many bones. When bacteremia becomes septicemia, abscesses may occur in various organs of the body as well as in the osseous tissues. The prognosis for recovery without the development of chronic osteomyelitis is not as favorable in the child over three years of age as it is in the infant patient.

The treatment of acute osteomyelitis by means of various sulfonamide compounds has been of proved value. However, some patients have been found sensitive to the sulfonamides, and in others the infecting organism was sulfa-resistant. Many patients treated with sulfonamides with apparent success subsequently developed sinuses and required surgery for the removal of sequestra or partial ostectomy for drainage of bone abscesses. Although the value of penicillin in the treatment of infections of bones following compound fractures and paranasal sinus suppuration, and in chronic osteomyelitis has been fairly well established, few case reports of its use in acute hema-togenous osteomyelitis have been made.

In each of the 12 cases which the authors reported, the acute infection was controlled by the use of penicillin, or a combination of penicillin and sulfonamides. In none of the 12 cases was surgery resorted to during the acute illness after beginning penicillin therapy. Two of the 12 patients had been subjected to surgery prior to the administration of penicillin, and three were subsequently operated upon: one for the removal of a small sequestrum, a second for removal of a sequestrum and later drainage of a small abscess, and a third for the drainage of an abscess. These operations were performed

months after the acute illness. All of the patients have been under observation for a period of five months or longer. Of the 12 patients included in this study, the youngest was just over three years of age and the oldest were two patients 12 years of age.

The focal infections included four femora, three tibiae, one humerus, one ischium, one cuneiform bone of the foot, one patella and femur, and one calvarium. In the latter case, however, the patient had been treated 15 months before for acute, hematogenous osteomyelitis of the left femur by means of sulfathiazole. In spite of this treatment, which was combined with surgery for drainage, several new foci appeared during the succeeding 12 months. The osteomyelitis of the skull, which represented a new focus, was successfully treated with penicillin after obtaining a blood culture which was positive for hemolytic Staphylococcus aureus. The acute lesion in the skull healed without requiring surgical drainage. No new lesions which produced clinical symptoms appeared from October 1943 to July 25, 1944, at which time the child was examined and found to be entirely well.

The prognosis in the treatment of acute hematogenous osteomyelitis in childhood, as indicated by reports of various observers, was most discouraging prior to the development of chemical agents to which the organisms producing this disease have proved to be susceptible. Too frequently surgery was resorted to without first preparing the patient by a program of rest, blood transfusions, and correction of the body fluid balance. Extensive surgical procedures were occasionally recommended and instituted when the patient was critically ill, and these no doubt increased the mortality rate. Dickson states that the average mortality "as nearly as can be determined in the usual type of the disease is somewhere around 10 to 15 per cent; the mortality in the septicemia is well over 50 per cent".

The results of penicillin therapy in a few reported cases, and in this series of 12 consecutive cases of acute hematogenous osteomyelitis, have included no deaths, no extensive areas of chronic osteomyelitis, and no instance of multiple foci in the bones after such treatment had been started. Three of these patients were critically ill, and in five of the patients blood cultures were positive for <u>Staphylococcus</u> <u>aureus</u>. Hemolytic <u>Staphylococcus</u> <u>aureus</u> was also cultured from the spinal fluid of one case. Negative blood culture in other cases may be attributed, in part, to the length of the elapsed time between onset and hospital admission and, in part, to sulfonamides which had already been administered.

The question of whether or not initial drainage should be carried out in each case of acute hematogenous osteomyelitis is still a controversial issue.

Dickson favors early drainage of the osseous focus except in the fulminating type. Wilson and McKeever, as well as Dickson, reported that patients treated with the sulfonamides without initial drainage frequently had more bone destruction and required greater surgical interference later than did those cases in which surgical drainage was instituted during the acute stage of the disease. The response to penicillin therapy in the short series of cases which are reported here encourages the opinion that penicillin will prove to be a more effective chemotherapeutic agent for this disease than the sulfonamides.

Sulfonamides had proved to be of little value in those cases of this series in which they were employed before penicillin was started. Almost immediate response to penicillin therapy was noted in the rapid lowering of the temperature of the acutely ill patients. The failure of the disease to spread to other bones or other organs in any of these patients encourages the belief that if penicillin could be started immediately after the onset of the acute illness, abscess formation, spread of infection in the bone that is involved, or devitalization of bone and the formation of sequestra may become relatively uncommon sequelae of acute osteomyelitis in children. Late surgery, which has been necessary for the removal of sequestra or the drainage of bone abscesses, may be rarely necessary. Since the bacteria which produce more than 95 per cent of the cases of acute hematogenous osteomyelitis in children are susceptible to penicillin, while some of them are resistant to the sulfonamides, the use of penicillin should be mandatory when this disease is diagnosed.

<u>Conclusions</u>: 1. Twelve cases of acute hematogenous osteomyelitis in children from three to 12 years in age have been studied and reported.

- 2. Penicillin was employed successfully in the treatment of each of the 12 patients.
- 3. The infection in ten of the patients treated successfully by penicillin had been proved to be resistant to the sulfonamides.
- 4. Penicillin appears to be a more effective agent in the treatment of acute hematogenous osteomyelitis than does any other therapeutic agent, including the sulfonamides.

- 5. Early use of penicillin in adequate doses administered at frequent intervals not only may cure the initial infection but also it may prevent spread to other bones, and in a majority of cases make surgery unnecessary.
- 6. If the penicillin is not started until after a bone has been extensively damaged, late surgery may become necessary.
- 7. From their experience in this short series of cases, the authors believe that inchildren from three to 12 years in age acute hematogenous osteomyelitis may be effectively treated if penicillin is administered intramuscularly in doses of from 15,000 to 20,000 units each every three hours day and night. After the fever begins to subside, the size of each dose may be reduced to 10,000 units, but the frequency of dosage must be maintained. When the patient becomes afebrile the dosage may be reduced gradually and discontinued after five days of normal temperature. Recurrences may occur if penicillin is stopped too soon. In several cases, there was a small, secondary temperature rise after stopping the penicillin.
- 8. Proper nutrition and fluid balance should be maintained. Splints, plaster encasements or traction should be used when needed for support or the prevention of contractures. (Ann. Surg., Dec. '45 Compere et al.)

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(Not Restricted)

Benadryl in Allergic States - A New Antihistamine Drug: Based upon the concept that conditions of an admittedly allergic nature plus other pathologic states not now recorded as allergic derive their clinical manifestations from the effects produced by the release locally of histamine or histamine-like substances, studies to find or develop an ideal antihistamine agent logically follow, as does the idea of using histamine itself to produce desensitization.

Benadryl (beta dimethylaminoethyl benzhydryl ether hydrochloride), which showed promising characteristics in antihistamine activity as published in reports in February and April last year, has been further studied at the Mayo Clinic and reported upon in the Proceedings of the Staff Meetings, dated 14 November 1945.

Bronchial asthma, hay fever, vasomotor rhinitis, Meniere's disease, and urticaria, some cases of which resulted from the administration of penicillin and barbiturates, were included in their studies. The greatest usefulness of the drug was shown in the control of symptoms associated with hay fever and urticaria.

Benadryl is administered orally and intravenously. All observations so far indicate that a wide range exists between therapeutic and severely toxic doses. Although the undesirable side effects of sleepiness, dizziness, dry mouth and feeling of nervousness occurred with significant frequency, they were not of such degree as to warrant discontinuance of the medication.

It was considered that the results reported leave little doubt that benadryl or some future better drug like it will have a definite place in the therapeutic armamentarium.

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Penicillin Treatment of Endocarditis and Meningitis: Penicillin was used to treat 22 cases of subacute bacterial endocarditis, 16 of which were due to Streptococcus viridans, 5 to miscellaneous organisms, and one in which no organism was ever isolated. This last patient showed prompt clinical improvement and is well. All cases due to the miscellaneous group of organisms ended fatally except one case due to Streptococcus fecalis. This patient continues to have positive blood cultures on small doses of penicillin daily. Of the 16 patients infected with Streptococcus viridans, 9 responded favorably. Some of these have been observed up to 18 months. In some instances, it has been necessary to treat patients with susceptible organisms for 27 weeks before negative blood cultures were constantly obtained. The optimum dosage of penicillin has varied from patient to patient, depending upon the susceptibility of the organism in vitro, as well as the clinical response of the patient. However, it is believed that a longer period of therapy, with dosage of 150,000 to 200,000 units daily, is more satisfactory in the cases with highly susceptible organisms than treatment over a short period of time with much higher dosage. Regardless of adequate therapy, some cases will succumb from decompensation and embolic phenomena.

Seven cases of pneumococcic meningitis were treated with penicillin. All were comatose or moribund on entry. Five died in from 8 hours to 13 days. One adult patient recovered completely; an infant recovered from the infection but had residual cerebral damage. (OEMcmr-520, Kerr, Univ. of Calif. - CMR Bulletin #70)

(Not Restricted)

Studies on Antagonistic and Enhancing Effects of Amino Acids in the Resistance of Gram-Negative Bacilli to Penicillin: The susceptibility of E. coli and three species of Salmonella to penicillin is highest in a basal medium devoid of amino acids. Blood serum in certain concentrations, meat infusion broth, yeast extract, and casein hydrolysate interfere with the penicillin activity

The effect is apparently caused by the antagonism of certain amino acids in the materials.

Dicarboxyl-monoamino acids (i.e., aspartic, glutamic, and hydroxyglutamic acids and asparagine) cystine, arginine, histidine, and hydroxyproline are capable of suppressing the effect of penicillin upon Gram-negative organisms.

The antagonism of these amino acids is not primarily related to their effect upon the rate of bacterial growth. It is suggested from the experiments detailed that the antipenicillin activity is due to some other effect of these amino acids upon bacterial metabolism.

Prepassages in media of various concentrations of these amino acids, antagonistic to penicillin activity, increases the resistance of E. coli to penicillin. The degree of increased resistance to penicillin produced by these prepassages is proportional to the concentration of the antagonistic amino acids.

The antipenicillin activity of amino acids may be reversed significantly by dl-methionine. This substance, however, reverses only incompletely the antagonism of materials of mixed composition, i.e., casein hydrolysate, meat infusion broth, and serum.

Upon addition of methionine, methionine sulfoxide and threonine, there occurs a marked enhancement of penicillin susceptibility of broth cultures of species of Brucella, Eberthella, Salmonella and Shigella. The enhancement is apparently due to the ability of this amino acid mixture to reverse effectively the action of the antagonists present in the cultures.

Methionine is essential for the enhancement of penicillin susceptibility. Threonine and methionine sulfoxide facilitate the effect of methionine following a reciprocal quantitative relationship. (J. Exper. Med., Jan. 1, '46 -Shwartzman, Div. of Bacteriol., Labs. Mt. Sinai Hosp., N. Y.)

(Not Restricted)

Tuberculosis in Naval Personnel: With the onset of World War II, the Navy Medical Department redoubled its efforts toward the prevention of entry into the Service of any persons with tuberculosis. In 1944, the Medical Department undertook, in addition, a program to restudy roentgenographically all personnel who had not had a chest X-ray during the previous 12 months; and thereafter an X-ray study once yearly if practicable on all personnel on active duty and under the age of 30.

The further development by the Navy Medical Department in 1939 of the photofluorographic method and its subsequent successful application to mass personnel screening have made possible the outstanding results that have been achieved through the tuberculosis control program.

During the war, Navy personnel were unavoidably exposed to overcrowding aboard ship, unfavorable living conditions at advanced bases, the often abnormal mental and physical strain incident to the daily routine and combat experience, and to other factors detrimental to health. These unfavorable health conditions which naturally favor the development and spread of tuberculosis were coupled with the lesser opportunity for most effectively carrying out the Navy case-finding program. This situation would be expected to result in the accumulation in the Service of a certain number of cases of tuberculosis.

The factors which built up the residue of undetected cases have now become inoperative. Furthermore, the normal case-finding effort which is being resumed is augmented by massive X-ray studies incident to demobilization. As a result the obvious is occurring. An increased number of cases of tuberculosis is being reported. The number of cases of tuberculosis discovered in any population group is of course directly dependent upon the number of persons present having tuberculosis and the zeal with which the case finding is prosecuted. Statistical studies will be made from time to time and upon completion of the demobilization process in order to determine the full degree of success of the tuberculosis control program.

* *

In the December 1945 <u>Pacific Fleet Medical News</u>, L. A. Hauser brings to the attention interesting cases and saliently informative points helpful in the early finding of cases of suberculosis.

Since tuberculosis stands very close to first as a cause of death in persons between the ages of 15 and 45, Hauser considers it imperative that naval medical officers should become tuberculosis-conscious.

Because of their instructive value, the author presents the following cases to illustrate some of the manifestations and problems incident to tuberculosis:

Case I. A seaman, aged 21, admitted 15 May 1945 following photofluorographic examination. He complained of pain in the right chest and cough of 4 months' duration. He had been treated for pleurisy on several occasions aboard an aircraft carrier where he had been for the past 12 months. Although his appetite was fair, he had lost 20 lbs. in weight in the last 8 months. Chest

X-ray on entry into Service, 23 February 1942, was recorded as negative. Chest plate, 15 May 1945, revealed a 4-cm. cavity and several small shadows of increased density in the upper half of the right lung. Sputum was positive for <u>Mycobacterium tuberculosis</u>.

Case II. A seaman, aged 22, was admitted from a carrier on 21 April 1945, with a diagnosis of lobar pneumonia. He complained of cough, hemoptysis and weakness. His ship had been in a combat action on 7 April 1945 at which time he had been exposed to excessive smoke inhalation. His pneumonic process manifested itself on 15 April. Sulfadiazine therapy was instituted. The patient reported a 30-lb. weight loss during the preceding three weeks. Physical examination revealed coarse rales throughout both lungs with greater prevalence over the left. A chest plate on 25 April showed mottled shadows of increased density throughout the left lung field with beginning cavity formation just beneath the left clavicle laterally. There were shadows of increased density in the right lung lateral to the hilus. Sputum was positive for M. tuberculosis. During this period of his hospitalization, the patient's temperature ranged from 99° to 100° F. The strain and exposure, and particularly the smoke inhalation incident to combat, were looked upon as the probable cause of the acute exacerbation of the tuberculous process in this patient.

Case III. A StM2c, aged 19, was admitted from an APA on 23 April 1945 with a diagnosis of lobar pneumonia, right middle lobe. He complained of cough and pain in the chest for the previous 2 weeks with associated sore throat at onset. Physical examination revealed mild distress with temperature of 102°, pulse 96 and respirations 20, with increased tactile and vocal fremitus and crepitant rales throughout the right upper and middle lobes. A chest plate taken 24 April showed increased density of the right lung between the clavicle and the fissure separating the upper and middle lobes. The roentgenologist reported that the location of the lesion suggested a tuberculous pneumonia. The sputum was found to be positive for M. tuberculosis. The clinical course was persistently downward, and the patient expired on the seventeenth hospital day. Autopsy revealed tuberculous involvement of the entire right lung and the lower lobe of the left lung with caseation and cavitation of the right upper lobe.

Case IV. A man, aged 27, admitted 8 June 1945, with pneumonia, left lower lobe. His cough, chest pain and fever were noticed on 6 June 1945. A chest plate on 9 June revealed a pneumonic process involving the left lower lobe just above the diaphragm and also disclosed, in the region of the right clavicle, soft mottled shadows considered indicative of active tuberculosis. Two of five sputum studies were positive for M. tuberculosis. After penicillin and sulfadiazine therapy a check plate, 18 June, showed complete clearing of the

(Not Restricted) process in the left lower lobe, but the mottled shadows in the right upper lobe remained unaltered. The health record showed a routine chest photofluorographic study on 7 April 1941 to be negative. He was married in October 1941 to a woman who had been released from a tuberculosis sanitorium in 1940 as "apparently arrested". A chest plate made on the subject at an Army Base Hospital, April 1943, was recorded as negative. A routine X-ray study of the chest made while at a naval hospital in July 1944, showed apparently arrested tuberculous lesions in the right lung.

<u>Case V.</u> A man, aged 23, admitted to hospital following routine photofluorographic examination which revealed a lesion of the left apex. He was of robust build and had no symptoms. History of exposure to tuberculosis was negative. X-ray of the chest at the University of Pennsylvania in 1943, was considered to be negative. Physical examination was negative. Chest plate showed a 2-cm. soft shadow of increased density at the level of the left fourth interspace. Sputum studies were positive for <u>M. tuberculosis</u>. The clinical course continued asymptomatic and afebrile.

Other cases: A man who had had three negative chest films during the previous two years, with the last one in February 1945, was admitted in June 1945 with a tuberculous pneumonia involving the entire upper lobe. A man with 8 years' Navy service, admitted to the surgical ward on account of an enlarged and fluctuant cervical lymph node, was found on chest plate to show a surprisingly extensive pulmonary tuberculous process although relatively few symptoms had been experienced. His sputum and material aspirated from the lymph node were positive for M. tuberculosis.

The author reminds us that serofibrinous pleurisy is another condition that is often associated with tuberculosis and that, while a majority of cases recover with only a few residual adhesions, it is well to remember that approximately one-third of such cases are later proved to be of tuberculous origin by the development of demonstrable evidences of pulmonary tuberculosis.

It is pointed out that unavoidable respiratory infections may, and not infrequently do, cause a relapse of an arrested pulmonary tuberculosis.

In view of the usually insidious onset of tuberculosis together with the great seriousness of the disease to the patient and the hazard of his presence among other personnel, the following diagnostic aids and recommendations are suggested and made by Hauser.

Consider the possibility of tuberculosis in all cases of respiratory infections, and particularly in persons with chronic cough.

Remember that about one-third of all patients with serofibrinous pleurisy develop demonstrable evidences of pulmonary tuberculosis at some later time.

Remember that hemoptysis is a very important sign. If no adequate reason can be found for the hemorrhage, the patient should be carefully and completely examined at frequent intervals.

Review the health records of all personnel under your jurisdiction and make certain that every person has had a chest X-ray. The Bureau requires that all personnel under 30 have a chest X-ray annually. (Photofluorography of separatees has priority over all other work by units assigned to separation centers. But the general separation-center experience has been that the priority work-load varies so widely that it has been possible in most instances when so requested to process the crews of visiting ships and local Navy and Marine Corps activities. In such instances, medical officers seeking photofluorography service, have personally made their arrangements with the separation-center Medical Department through the separation-center commanding officer. - Ed.)

A history of any exposure to tuberculosis is of great value and should always be included in the record of patients with respiratory infection.

The presence of fluctuant cervical lymph nodes should make one think of tuberculosis.

Careful clinical and laboratory examinations will often lead to the correct diagnosis of tuberculosis even though X-ray facilities are lacking.

Examine the sputum repeatedly for acid-fast bacilli in all cases of acute and chronic pulmonary disease. In appropriate cases, the fasting stomach contents should be examined for tubercle bacilli.

Personnel with X-ray evidence of tuberculosis should not be assigned to duty aboard ship or outside the continental limits.

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The Effect of Pyridoxine on Granulopenia Caused by Thiouracil: To a small series of hyperthyroid patients in whom the administration of thiouracil had caused a depression of granulocytic cells in the blood, Fishberg and Vorzimer have administered 200 mg. of pyridoxine daily. There was a rapid

and significant rise in the number of circulating granulocytes which could not entirely be explained by self-recovery after the removal of the toxic agent.

The appearance of the normal number of granulocytes in the blood stream is dependent on two factors: a hypothetical, and as yet undemonstrated substance, which regulates the orderly maturation of the myeloblast into the completely segmented granulocyte, and another substance which governs the entrance of the mature cell into the peripheral blood stream. It is believed that the rapidity of action of the pyridoxine would seem to indicate that the primary action must be on the release mechanism. However, the possibility of a direct stimulation of the myelocytic elements of the bone marrow must be considered. (Proc. Soc. Exper. Biol. and Med., Nov. '45)

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The Treatment of Rocky Mountain Spotted Fever with Para-aminobenzoic Acid: Laboratory experiments have shown para-aminobenzoic acid to be an effective agent against the organisms of murine and epidemic typhus. Clinical trial of this drug also has been made by members of the U.S.A. Typhus Commission in an outbreak of European typhus at which time it was shown that the course of the disease could be favorably modified if the drug was given in the first week of illness.

More recent laboratory experiments have shown that the Rickettsia of Rocky Mountain spotted fever in culture is even more susceptible to paraaminobenzoic acid than is the typhus Rickettsia.

In the Journal of the American Medical Association of December 22, 1945, Rose et al have reported treatment of a case of Rocky Mountain spotted fever with this drug. The patient presented a typical clinical picture of the disease following a tick bite, and the diagnosis was confirmed by complement fixation with Rocky Mountain spotted-fever antigen and by cultivation of Rickettsia from the patient's blood. Para-aminobenzoic acid was started on the fifth day of illness and was continued for a total of 5-1/2 days. After adjustment of the dosage on the first day, the total daily intakes were 25, 30, 26, 20, and 8 Gm. respectively. Clinical improvement was evident after the first 24 hours of therapy and was continuous. Thirteen days after the onset of the illness the patient was asymptomatic and the subsequent course of the disease was uneventful.

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Comfort of Men Sleeping in Cool Environments: Experiments were conducted on men sleeping in an air-conditioned room at night to determine environments in which they were comfortable and to determine the coolest environments in which they could sleep reasonably well.

It was found that 27° C. with 46 per cent relative humidity was an ideal temperature for men sleeping in dry poplin jungle uniforms on double-decker beds with mattresses. No blankets or sheets were used as covering in these experiments. The men were distinctly uncomfortable at 18.8° C. but were able to get plenty of rest at 21.2° C. under these conditions. This latter environment was considered to be the coolest in which men could sleep reasonably well in jungle uniforms, although they were not completely comfortable. Neither the addition of a woolen knit shirt nor reducing the air movement by hanging mosquito bars over the beds enabled the men to rest well at 18° C. When the men slept in clothing which had been wetted with 800 to 900 Gm. of water, 30° C. with 90 per cent relative humidity was found to be a comfortable environment; however, they were able to sleep reasonably well at 27.1° C. with 50 per cent humidity. (OEMcmr-351, Gerking and Robinson, Univ. of Indiana - CMR Bulletin #70)

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Transmission of the Toxicity of DDT through the Milk of Rats and Goats: Telford and Guthrie have conducted experiments to determine if DDT, or its decomposition products, is present in the milk of animals fed DDT. The results, using goats and rats, indicate that with continued oral administration of DDT there is eliminated in their milk a toxic substance which, when the milk is fed to adult and suckling rats, produces symptoms indistinguishable from DDT intoxication. The degree of toxicity of the milk is in proportion to the length of time the animal ingests DDT. In goats, there is also suppression of milk secretion on prolonged administration.

The data strongly suggest the need for further research on the toxicity of milk because of the possibility of dairy cows ingesting DDT residues with sprayed or dusted forage plants, or of absorbing significant amounts as a result of licking themselves after being sprayed or dusted with this insecticide. (Science, Dec.21, '45)

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Summary of Diseases Encountered at Necropsy in Natives on Guam: The significant pathological findings in a series of 248 necropsies performed by Zimmerman on natives of Guam from 21 January to 15 December 1945 are hereinunder summarized:

One of the more serious medical problems encountered was that of tuber-culosis. Extensive involvement was found in 34 cases (10.3 per cent of autopsies) and death was directly attributable to this cause in 24 of the instances.

As a primary cause of death, hookworm disease ranked next to tuberculosis with 21 cases. All of the fatal cases were in children of 4 years of age or under. In older children and in adults, ancylostomiasis was encountered in 84 per cent of the cases, but both the percentage of infection and its severity were considerably greater between January and July than between August and December. The actual incidence of hookworm disease in the native population was greater than that determined at necropsy, for many of the hospitalized patients were treated with anthelmintics.

Malignant neoplasms accounted for the deaths of 16 patients. Of these, 4 were uterine carcinomas and 2 were carcinoma of the breast. Also represented were an embryonal carcinoma of the testis, 2 cases of primary carcinoma of the liver, a bronchiogenic carcinoma, a pleural sarcoma, 2 cases of meningioma, a lymphosarcoma, a case of Hodgkin's disease and one of Wilms' tumor of the kidney.

Rheumatic heart disease as represented by advanced mitral stenosis with congestive heart failure was present in 6 cases. Two of these were complicated by bacterial endocarditis. In addition, there were 2 fatal cases of aortic stenosis with congestive failure in native males, each over 70 years of age. These, also, probably represented rheumatic involvement. Minor degrees of healed mitral valvulitis were present in 33 instances, emphasizing the frequency of rheumatic fever among the Chamorros.

Only 7 cases of hypertensive heart disease were discovered in all the 248 autopsies. In 3, subacute or chronic glomerulonephritis was the underlying cause, whereas the nephritic lesions accompanying lupus erythematosis and chronic pyelonephritis accounted for one case each. The remaining 2 patients had extensive arteriosclerotic changes with myocardial and cerebral infarction; the first was a pure-blooded Spaniard who had lived on Guam for 40 years and the second was a Japanese, also a long-time resident on this island. One of the outstanding findings in the autopsy series was the lack of appreciable atherosclerotic and arteriosclerotic changes in the Chamorros.

One adult female had a large aortic aneurysm which ruptured into the pulmonary hilum and produced a fatal hemoptysis. The aortic cusps were intact. She had no luetic history, was never treated for syphilis and had repeated negative Kahn tests, but she did give a history of having had yaws many years previously.

During the first 5 months of this study there occurred 6 cases of fatal malnutrition, 3 complicated by so-called beri-beri heart. In the subsequent 5 months there was not a single case. There was in conformity with the general improved nutritional status of the native population.

Of especial interest were 2 cases of erythroblastosis foetalis. (Report for the Island Command War Diary, N.M.R.U. #2)

The War and Biological Sciences in Japan: Before the war, Japan, in most fields, was ahead of other oriental countries in extent of scientific development. Many finely illustrated scientific books or comprehensive works, particularly those dealing with the fauna and flora of Japan, or neighboring countries, were published.

The biological sciences have suffered considerably in Japan as a result of the war. In general, only research of importance to the war effort was given support; nevertheless, university professors and certain scientists had some freedom, within the limitations of equipment, materials and demands made upon their services. As a result of the confusion incident to the bombing of the Japanese homeland in the latter part of the war, much of the nonessential work virtually came to a standstill. At the present time emphasis is being placed on increasing production of food, particularly that coming from marine and agricultural sources.

Considering the extent to which most of the cities of Japan were destroyed during the war, a fairly high proportion of the scientific institutions received little or no damage.

Relatively few scientists were among the many thousands of civilians killed during the war.

Publication of scientific reports was greatly reduced, journals of institutions were reduced in size, and many society or private publications had been discontinued by 1943 or early 1944. Rather poor paper was used in many of the books published during the war.

In scientific development and discoveries, Japan, during the war, was behind the United States in many ways, although some new drugs were developed which may prove valuable. Among these are two neocyanines, called koha and Shiko, which are reputed to be helpful in the treatment of leprosy, tuberculosis, wounds and burns. Until the end of the war, "DDT" was known to

the Japanese scientists only by name. As soon as the atomic bombs were dropped on Hiroshima and Nagasaki, pathologists and other specialists were sent to the areas from various institutions, particularly Kyoto and Kyushu Imperial Universities, to study effects on the victims. Many necropsies were performed and specimens taken and, before American personnel arrived, the Japanese investigators had concluded that the principal cause of deaths occurring some time after the explosions in the case of victims who did not have serious radium burns was hypoplastic anemia. They also concluded that radioactivity in the areas disappeared within several days, although people entering the areas shortly after the explosions became anemic. (Report for the Island Command War Diary, N.M.R.U. #2 - Gressitt)

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Abstracts of Reports on Research Projects at the Medical Field Research Laboratory, Camp LeJeune, North Carolina. (Full reports are available to medical officers upon request.):

X-617 Field Testing of Paper Blanket.

The Sterner paper blanket was tested for utility and durability under field conditions. Its advantages are: that it is fire retardant, durable when dry, disposable when soiled and it has satisfactory comfort value against wind and cold when used as extra protection wrapped inside a canvas or wool blanket. Disadvantages are: that it has little tear strength when wet, it deteriorates when stored under tropical conditions, it is not adaptable for use as a litter or shelter-half, as are cloth blankets and it is difficult to wrap and maintain securely on an individual when environmental air currents are appreciable.

X-583 (Av-301-p)

A Study of the Durability of Glasses, Sun, N-1, Contract No. NXsX-66844.

Under the conditions of testing used it was found that damage to glasses results from relatively short periods of use, a replacement rate of about 70 per cent in seven weeks being necessary.

X-590 Development of a Jungle First-Aid Kit (Individual).

Jungle first-aid kit, stock No. S2-1057 has been discarded as impracticable and a new kit, considered to be more compact and convenient, has been developed and tested.

X-575

Comparative Analysis and Field Testing of a Captured German Battle Dressing and a U.S. Small Battle Dressing, Carlisle Model, Camouflaged.

The German-made dressing incorporates a superior protective covering of rubberized fabric. The compress portion of the dressing contains an unidentified powder with twice the bactericidal effect of 5 per cent phenol against a strain of <u>Staphy-lococcus</u> aureus.

X-661

CL - 1- NT-

Determination of Ambient Air Temperatures and Humidities in Painted Tents and Quonset Huts as Compared with Unpainted Tents and Quonset Huts.

The temperature inside a standard, unpainted green pyramidal tent was 23.5° F. higher (average over 5-day period) than in a similar tent painted white. The relative humidity was from 14 to 17 per cent higher in the painted tent.

On one selected day of moderate temperature, the temperature in a plywood operating room painted green outside was an average of 15° F. higher than in a similar plywood room painted white. Relative humidity was about the same in the two rooms.

Differences in interior temperatures were not significant in quonset huts painted dark green, white and aluminum.

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Supply Source for Power Driven Insecticide Sprayers: It has been noted in recent quarterly sanitary reports that there is an apparent shortage of portable, gasoline-driven, insecticide sprayers for use at continental naval stations. A quantity of these sprayers, which are mounted on skids and feature a 50-gallon steel tank, a 1-1/2 h.p. Briggs and Stratton gasoline engine, 200 feet of oil-resistant hose coupled in 50-foot sections, larviciding and residual spray nozzles, and a set of spare parts are now available at NSD, Oakland, California. These units, which were formerly reserved for use at overseas bases, can now be obtained by continental stations through the regular supply channels. Requisitions for these sprayers should specify:

	Stock No.	<u>Item</u>	<u>Un</u>
	41-5-4116	Sprayer, insect, liquid pressure, gas oper-	1
	(L-Oak)	ated, 50-gallon capacity, skid mounted, with	
1		oil-resistant hose and fittings, pressure	
		regulator, double outlet, insecticide nozzles.	

(Prev. Med. Div., BuMed)

Course in Medical Statistics: The Bureau of Medicine and Surgery is arranging for the training of Medical Officers in the speciality of Medical Statistics at the School of Hygiene and Public Health of Johns Hopkins University. Medical Officers wishing to take this course should submit an application to the Chief of the Bureau of Medicine and Surgery. (Medical Statistics Div., BuMed - F. R. Lang)

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Course in Island Administration: NAVACT 15 of 30 November 1945, requested application by despatch from officers of the Line and Staff Corps, including the Medical Corps, regulars and reserves, for training at the School of Island Administration.

It is the intention of the Bureau of Medicine and Surgery to select a limited number of medical officers for assignment to this course of instruction from the list of officers in all ranks who are now normally due for sea or foreign-shore duty, or will be upon completion of the course. It is the understanding of this Bureau that the course is tentatively scheduled to commence in April 1946 at Stanford University and will be of approximately five months' duration. This course will be followed by a two months' course of instruction in Tropical Medicine for medical officers. This training prepares for unusual opportunities. The wide medical experience that may be anticipated by medical officers through this training is expected to play an important role in Navy medicine in the postwar era. A normal rotation in duty assignment in other fields may be expected upon completion of an overseas tour of duty for graduates of this course.

All medical officers are urged to consider this type of duty. Those desiring this training and subsequent duty assignment are requested to forward application to BuMed at the earliest practicable date in order that necessary processing and orders to training can be provided prior to the establishment of the course. (Pers. Div., BuMed - W. W. Hargrave)

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(Not Restricted)

Fellowships in Clinical Medicine: Announcement has been made that after 1 February 1946, no further applications can be considered for the Clinical Fellowships in Medicine offered by the American College of Physicians (Bumed News Letter, November 9, 1945).

This early date for closing of applications was brought about by the large number of applications now on hand and pending.

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Notices to Dental Officers

January Issue of the Journal of the A.D.A.: The American Dental Association has stated that it will send to any dental officer upon request a complimentary copy of the January 1946 issue of the Journal of the American Dental Association. This is the issue devoted fully to the problems of dental officers returning to a civilian status. Requests should be made to:

War Service and Postwar Planning Committee American Dental Association Room 311, 1726 Eye Street, N.W. Washington 6, D. C.

* *

Transfer of Dental Officers from the Naval Reserve to the USN: It is anticipated that legislation now pending in Congress will be enacted which will permit the transfer of reserve dental officers to the regular Navy. A board is now in session in the Navy Department reviewing the applications of reserve dental officers for transfer and making tentative recommendations in this connection.

The attention of all dental officers is invited to the article regarding the transfer of medical officers to the regular Navy which appeared in the Bumed News Letter of December 21, 1945. All provisions of that article applying to Navy medical officers apply equally to Navy dental officers.

It is anticipated that there will be several hundred vacancies in the regular Navy Dental Corps for qualified officers of the Naval Reserve. Reserve officers who anticipate requesting transfer should make application as soon as possible.

<u>Professional Training for Dental Officers</u>: A program of courses of post-graduate instruction for dental officers to be given at the Navy Dental School as well as other service schools and civilian educational institutions is now being formulated by the Bureau.

A study is being made regarding the feasibility of rotating the duty of dental officers in order that they may improve their skill in settled branches of dentistry.

<u>Legislation Affecting Dental Officers</u>: Public Law 284, 79th Congress, approved December 28, 1945, provides for greater autonomy of the Navy Dental Corps and further provides that the Bureau of Medicine and Surgery shall be reorganized to comply with the provisions of this law within six months after the date of enactment.

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Method of Application for Certification by the American Boards of Various Specialties or for Fellowship in the Colleges: Applications from medical officers of the Naval Reserve and those of the regular Navy for certification by the Specialty Boards should be sent directly to the board concerned. Examination for certification is entirely the responsibility of the Boards; if the Boards so request, the Bureau of Medicine and Surgery will substantiate or verify the records of any applicant. The individual officer should notify the Bureau of Medicine and Surgery when he has been certified.

Applications for fellowship in the American College of Surgeons, or the American College of Physicians are handled differently for medical officers of the naval reserve and those of the regular Navv:

- 1. Medical officers of the Naval Reserve are required to submit their applications directly to the colleges which will contact the Bureau of Medicine and Surgery for substantiation of records if desired.
- 2. Medical officers of the regular Navy are requested to forward their applications through the Bureau of Medicine and Surgery. The purpose of this procedure is to obtain the recommendation of the Advisory Board and approval of its action by the Surgeon General after review of the officer's record.

(Chief, BuMed - Ross T. McIntire)

(Not Restricted)

Training in Pathology: There exists a need for trained pathologists in the Navy Medical Corps. Requests for such training are invited by the Bureau from those members of the regular Navy Medical Corps who are interested in being trained in pathology with a view to remaining in this specialty.

Applications should be addressed to the Chief of the Bureau of Medicine and Surgery, Attention: Professional Division. (Prof. Div., BuMed)

Public Health Foreign Reports:

<u>Disease</u>	Place	<u>Date</u>	Number of Cases
Plague	Bolivia, Santa Cruz Dept., Province of Cordillera,		
	Laguinillas Union of S. Africa, Transvaal,	September '45	4
	Pretoria	Nov. 3-10, '45	1
Smallpox	Bolivia British E. Africa,	October '45	166 (24 fatal)
	Tanganyika	Oct. 6-13, '45	228 (33 fatal)
	Peru	September '45	37
	Venezuela	October '45	82 (1 fatal)
Typhus			
Fever	Bolivia	October '45	43 (20 fatal)
	Guatemala	September '45	515 (48 fatal)
	Peru	September '45	57
Yellow			
Fever	British Guiana,		
	Kwakwani Sudan (French),	Sept. 24, '45	1 fatal
	Bamako	Oct. 18, '45	1 suspected, fatal

(Pub. Health Foreign Reps., Dec. 14, '45)

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The Naval Medical activities listed below have been disestablished by authority of the SecNav. Disestablishing letters in full may be found in the Navy Department Semimonthly Bulletins of 15 and 31 December 1945.

Op24-pd, Serial 171P24, 7 December 1945

U. S. Naval Receiving Hospital, San Francisco, California.

Op24-pd, Serial 167P24, 7 December 1945

U. S. Naval Medical Supply Storehouse Number 1, Subic Bay, Philippine Islands.

U. S. Naval Medical Supply Storehouse Number 6, Manus Island, Admiralty Islands.

Op24-pd, Serial 209P24, 14 December 1945

U. S. Naval Special Hospital, Santa Cruz, California.

Op24-pd, Serial 205P24, 14 December 1945

U. S. Naval Special Hospital, Springfield, Massachusetts.

Op24-pd, Serial 192P24, 14 December 1945

U. S. Naval Overseas Base Hospital 14, Finschhafen, New Guinea.

To: All Ships and Stations.

(Not Restricted) 17 December 1945

Subj: Joint Procurement of Medical and Surgical Equipment and Supplies.

Ref: (a) Joint ltr. of Secretary of War and Assistant Secretary of the Navy, of 9 Oct. 1945.

1. In order to facilitate the exercise of the authority delegated by reference (a) to the Chief of the Bureau of Medicine and Surgery and to the Surgeon General, U. S. Army, in connection with the central procurement of medical material for the Medical Departments of the Army and the Navy, there is hereby established the:

Burned News Letter, Vol. 7, No. 3

RESTRICTED

• (Not Restricted)

Army-Navy Medical Procurement Office, 52 Broadway, New York, N. Y.

This is an activity under the joint administrative and technical control of the Chief of the Bureau of Medicine and Surgery and the Surgeon General, U.S. Army.

2. Bureaus and offices concerned take necessary action.

-- SecNav. H. Struve Hensel.

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- ALNAV 416

(Not Restricted) BuMed. 4 December 1945

Subj: Destruction of Excess Drugs.

Destroy all of the following drugs in excess of requirements and war reserves: Jelly of tannic acid No. 1-410; 1-415; S1-2745; S1-2746; Ointment Bal No. S1-3361; Ointment Protective No. S1-3375; Cream, Protective, Burn S1-2366.

-- SecNav. James Forrestal.

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ALNAV 422

(Not Restricted)
BuMed.

Subj: Immunization Certification.

11 December 1945

The immunization requirements for Navy dependents proceeding to the Hawaiian Islands as provided for in SecNav letter 44-534 are hereby suspended until 1 February 1946. The suspension may be granted only after the prospective passenger has signed a written agreement stating that full compliance with the regulations will be observed after arrival in the Hawaiian Islands. The signed copies of the agreement will be forwarded by Com 12 to Com 14 who will take the necessary action to confirm that they have been adhered to. All persons who are eligible and avail themselves of this suspension should be advised to comply with the requirements for immunization prior to departure if possible. Otherwise they should start the inoculation courses to be completed in Hawaii.

--SecNav. James Forrestal.

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ALNAV 444

Subj:

(Not Restricted)
BuMed.

Appointment to Dental Corps, Regular Navy.

18 December 1945

RESTRICTED

Burned News Letter, Vol. 7, No. 3

(Not Restricted)

A large number of dental officers in the Naval Reserve, in and above the rank of lieutenant commander, have indicated their intention of applying for appointment in the Dental Corps of the Regular Navy. These together with the number of dental officers in the Regular Navy in ranks of lieutenant commander and above make it reasonably certain that there will not be a sufficient number of billets as senior dental officer to assure each applicant of such assignment. However, such applications will be accepted for general dental duties.

--SecNav. James Forrestal.

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ALNAV 445

(Not Restricted)
BuMed.
18 December 1945

Subj: Shortage of Dental Officers.

Due to the urgent need for dental officers, it is directed that the practice prevailing in some activities of using two shifts of dental officers be discontinued so that personnel may be made available to activities experiencing difficulty in maintaining a full single shift. Dental officers relieved of duty on second shifts shall be reported by name, rank, and file number to BuMed by air mail. If any exceptions to the above directive are required because of unusual circumstances, requests to continue double shifts may be made by dispatch to BuMed.

--SecNav. James Forrestal.

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ALNAV 451

(Not Restricted)
BuMed.

Subj: Reporting of Deaths and Disposition of Remains.

19 December 1945

Existing directives, including SecNav 301740, November 1945, not to or needed by all, concerning the reporting of deaths and the disposition of remains of Navy, Marine Corps, and Coast Guard personnel who die beyond the continental limits of the United States will also apply so far as practicable to cases of deceased civilian employees of the Navy and other civilians connected with the Navy, including contractors' employees, except that no actual expenditure of Navy Department funds may be made for civilians other than Navy employees. Where death occurs aboard ships at sea and preservation or retention of the body is impossible, burial at sea is authorized. All cases should be reported accordance existing regulations for Navy, Marine Corps and Coast Guard, and NavMed Form Nan and NavMed Form 601 submitted to BuMed.

--SecNav. James Forrestal.

Bumed News Letter, Vol. 7, No. 3

RESTRICTED

ALNAV 457

(Not Restricted)
JAG.
28 December 1945

Subj: Injuries of Civilian Visitors.

Increasing number claims injury civilian visitors, with potential litigation, particularly Navy Day occurrences, have been reported to JAG. Situation requires that commanding officers, in event physical injury experienced by civilian on naval vessel, follow as far as possible procedure prescribed article 804, Navy Regulations, and section 726, Naval Courts and Boards in order to obtain full statements all witnesses to injury. Particularly important to have made as complete physical examination as possible of injured party. Original records and reports should be forwarded to JAG, attention Chief Admiralty Officer.

--SecNav. H. Struve Hensel.

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To: All Ships and Stations.

(Not Restricted)
BuMed-N-vh
A3-3/EN10(F)

Subj: "Closing Out" of Cases on Sick List 31 December on NavMed Form F, Expediting of.

13 December 1945

Ref: (a) Par. 2405 (c), Manual of the Medical Department.

- 1. Reference (a) directs that all cases on the sick list on 31 December of each year be closed out and reported on NavMed Form F as "disposed of" by a dash indicating "CONTINUED TO NEXT YEAR" and "taken up" on the following day (1 January) by a dash indicating "REMAINING" from the last year.
- 2. This procedure serves two major purposes, mainly, (a) to enable statistics to be processed on an annual basis, and (b) to provide the one and only complete daily census of all patients on the sick list throughout the entire Navy.
- 3. The data obtained from this procedure are of extreme importance for purposes of planning present and future requirements of the Medical Department relative to various categories of patient-load.
- 4. In view of the urgency of obtaining these data for purposes of post-war reconversion, all activities are directed to expedite the completion and forwarding of NavMed Form F "CONTINUED TO NEXT YEAR" and "REMAINING" cards as soon after the end of the year as practicable.

-- BuMed. Ross T. McIntire.

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RESTRICTED

To: All Ships and Stations.

(Not Restricted) BUMED-Y-SMM P3-3/P3-1

Photofluorographic Examinations of the Chest of Subj: Naval and Marine Corps Personnel.

3 Tan 1946

Ref:

(a) MatDiv dispatch #251820 to Comdts., All Naval Districts and River Commands. Re: Tuberculosis Control Program, Temporar ilv suspended.

(b) BuMed Ltr BUMED-Y-DFS, P3-3/P3-1 (054-40), dated 4 Jan

1945 (N. D. Bull., Item No. 45-83).

1. Reference (a), addressed to Naval Districts and River Commands, author ized the temporary suspension of the tuberculosis case-finding program where necessary, in order to utilize and/or mobilize equipment required for separation examinations.

- 2. It is directed that all the provisions of reference (b) be re-established whereever photofluorographic equipment and operational personnel are not fully occupied with the Separation Program. Particular emphasis shall be given to securing, where possible, the examinations of the chest of personnel going overseas who have not received such examination within the past year.
- 3. Mobile photofluorographic units are not yet available for use outside the separation centers. Commandants of Naval Districts will be notified when the units are ready for assignment.
- 4. The stock of photofluorographic film is considered adequate to provide for requirements of the Separation and Tuberculosis Control Program provided that each activity limits requisitions to one month's supply. The requisitions should be based on inventory and expected work loads. Stations possessing photofluorographic equipment shall advise Materiel Division, Bureau of Medicine and Surgery, Sands & Pearl Sts., Brooklyn, N. Y. of the expected daily work load for separations and tuberculosis control examinations, indicating type of film required. Upon receipt of this information, issue will be authorized as indicated.

--BuMed. Ross T. McIntire.

All Ships and Stations. To:

(Not Restricted) BUMED: C: HIR P6-3

Embalming and Preparation of Remains for Return Subj: from Overseas.

4 Jan 1946

1. Effective 1 January 1946, the remains of Navy, Marine Corps or Coast

Guard personnel who die on or after that date in the Tenth, Fourteenth, Fifteenth and Seventeenth Naval Districts, or in ships able to transfer their dead to a shore activity in one of these districts, are to be returned to the United States. The authority for such return is contained in SecNav dispatch 301740 November which was addressed to all ships and to the above noted Naval Districts.

- 2. When remains of the dead are to be returned home from overseas, it is essential that especial care shall be used in embalming, preparation, and encasement to insure arrival at final destination in good condition. Whenever practicable the remains shall be prepared under the supervision of a naval medical officer, who shall determine by final inspection that embalming and preparation have been properly performed, and that the clothing and encasement meet the requirements of the occasion. If practicable, there should be two inspections: The first, after embalming has been completed, but before the body has been clothed, as to the efficacy of the embalming process; the second, after the body has been clothed and encased, as to the general appearance, completeness, correctness and condition of uniform and clothing, position in casket and condition of casket. The conditions noted on such inspection should be made the subject of a memorandum report for file with the record of the deceased. New clothing shall be obtained, if necessary, and charged to the appropriation "Medical Department". The services of an embalming technician shall be utilized when available.
- 3. The Handbook of the Hospital Corps, U.S. Navy, outlines the procedures to be followed when embalming is done by service personnel.

-- BuMed. Ross T. McIntire.

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To: All Ships and Stations.

(Not Restricted) BUMED:Y:jk P11-1/P3-1 8 Jan 1946

Subj: Indoctrination of Personnel in Venereal Disease Control, Sex Hygiene, and Associated Problems.

Ref: (a) BuPers-BuMed joint ltr. 25 Mar 1941, (ND Bull, Item 41-2064).

(b) General Order No. 14.

(c) Navy Regulations, Articles 741, 843, 1134, 1319 (2).

1. Welfare and health conditions in Pacific and Far Eastern areas are such as to necessitate immediate intensification and continued attention to environmental, health and venereal disease control measures by all commands. In addition, largely as a result of a general social and psychological let-down coincident with the surrender of Japan, circumstances predisposing to disciplinary problems and venereal disease infections have developed in the continental United States area. This latter situation has been aggravated by personnel who have been returned from overseas assignments without adequate indoctrination as to recreational and

venereal disease conditions.

- 2. In order to meet these circumstances, it is directed:
 - a. That all personnel on overseas duty be fully informed of environmental, recreational, sanitation, and health (including venereal disease) conditions prior to making liberty.
 - b. That all personnel scheduled for overseas service receive complete basic training and repeated indoctrination in matters of personal hygiene, health and liberty discipline.
 - c. That all personnel returning from overseas duty receive "refresher" indoctrination in matters of venereal disease and be fully informed as to recreational and health conditions prior to disembarkation.
- 3. Responsibility for carrying out the foregoing and for compliance with stated Navy policy and obligations (refs (a) and (b)) is that of commanding officers (ref (c)). Attention is directed to the fact that these responsibilities are applicable to all areas occupied by U. S. Naval Forces as well as to the United States and its territories and possessions.
- 4. The Commandant of the Marine Corps, the Chief of the Bureau of Naval Personnel, and the Chief of the Bureau of Medicine and Surgery will provide the technical direction, assistance, and education materials and facilities as necessary.

-- BuMed. Ross T. McIntire.

--BuPers. W. M. Fechteler.

-- MarCorps. A. A. Vandegrift.

Approved:

-- SecNav. H. Struve Hensel.

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To: All Ships and Stations.

(Not Restricted)
BUMED:RL:DME
QR/P19-3
8 Jan 1946

Subj: Health Records of Persons Released from Active Duty or Discharged from the Service; Disposition of.

1. When an individual is discharged from the service, the health record shall be terminated and forwarded to the Bureau in accordance with the following instructions:

- (a) Detach and destroy the health record cover (NavMed H-1).
- (b) Place Form NavMed H-2 on top of other "H" forms.
- (c) Forward original copy of Form NavMed Y, Report of Physical Examination. Fold Form NavMed Y once to 4" x 10 1/2", place on bottom of NavMed H forms and staple at top. Where the Form Y is required it must be attached to and forwarded with the health record in order to eliminate separate sorting and filing operations.
- 2. Health records should be forwarded to BuMed only when the individual (officer or enlisted), is actually separated from the service. The entire health record, including the cover, of Navy personnel released to inactive duty or on terminal leave should be forwarded to the Commandant of the district in which they intend to reside.
- 3. In the case of Marine Corps personnel released to inactive duty or on terminal leave, the entire health record, including the cover, should be forwarded to the District Commander of the Marine Corps District, in which they intend to reside.

--BuMed. Ross T. McIntire.

To: All Ships and Stations. (Not Restricted) BUMED TW:FL A10-1/EN10(061-

Subj: Handbook of the Hospital Corps, U.S. Navy, 1939 -

Issuance of.

36) 14 Jan 1946

- 1. Any Medical Department activity having an excess of subject book may issue copies without charge to any member of the Medical Department.
- 2. Accounting procedures will be as follows:
 - (a) Naval and Special Hospitals.
 - 1. Reclassify equipment as supplies by a debit to Account 13, Navy as a Whole and a credit to Account 3, Equipment with a concurrent debit to Expense Analysis Account E307/08. Then, debit Account 4, Stores and credit Account 13, Navy as a Whole with a concurrent credit to Expense Analysis Account E307/08. Reflect amounts in inventory adjustment column on Statement of Storeroom Inventory.

- 2. The issue of these books to individuals shall be made on NAVMED R and a charge to Expense Analysis Account E101/03, Administration.
- (b) Ships and Stations.
 - 1. Reclassify equipment as supplies by transferring the value of the books on NAVSANDA 127. Record the transfer value in equipment expenditure section of Journal of Receipts and Expenditures and post in the equipment ledger. Record the receipt in the supplies receipt section of the Journal of Receipts and Expenditures and post in the supplies ledger. The issue of these books to individuals shall be made on NAVMED R.

--BuMed. Ross T. McIntire.

To: All Ships and Stations.

(Not Restricted) BUMED: E: AI A6-6/EN10 18 Jan 1946

Inactive Medical Department Records of Vessels Subi: Placed in "Inactive Status" and Stations Placed in a "Caretakers Status".

- Ref: (a) BuMed ltr, 4 Oct 1945 (N. D. Bull, Item 45-1544).
 - (b) BuMed ltr, 12 Jun 1945 (N. D. Bull, Item 45-646).
- 1. Par 3-4.--Inactive records shall be transferred or disposed of in accordance with the following instructions.
 - a. When a vessel is placed in "inactive status" the medical department correspondence files and records (except Property Records, see par 4-3(d)) shall be properly arranged, packaged in numbered boxes or other suitable containers (numbering of boxes to contain reference to total boxes of shipment, thus: Box No. 1 of 20, box No. 2 of 20, etc.), and each box and container inventoried. Inventories shall be prepared in quadruplet; one copy to be placed in the appropriate box or container, one copy to be submitted to naval records management center, one copy to be transmitted to BuMed and one copy kept aboard the ship or station. After records have been packaged and inventoried, a letter of notification of shipment shall be prepared and sent air mail to the appropriate naval records management center. This letter shall state the approximate cubic footage and the general character of the letter of notification and inventories

shall be sent to BuMed. The packaged records may then be shipped to the appropriate naval records management center.

b. Naval Records Management Center, New York, will serve activities in the First and Third Naval Districts. Naval Records Management Center, Eastern Division, will serve activities in Naval Districts 4 through 10, in the Fifteenth Naval District, in the Severn and Potomac Rivver Naval Commands, and in the European-Africa-Middle East area. Naval Records Management Center, Western Division, will serve activities in Naval Districts 11 through 14, in the Seventeenth Naval District, and in the Asiatic-Pacific area. Addresses of the Naval Records Management Centers are as follows:

Naval Records Management Center Annex 80 Varick Street New York, New York

Naval Records Management Center, Eastern Division 253 North Broad Street Philadelphia, Pennsylvania

Naval Records Management Center, Western Division 417 South Spring Street Los Angeles, California

- 2. The provisions of ref (a) as applies to inactive Medical Department records shall apply to stations placed in a "caretakers status". The term "caretaker status" includes stations in non-operating condition requiring a minimum strength personnel unit, the mission of which is to maintain physical U. S. possession of the property involved, and to guard such property against deterioration, damage, looting and theft.
- 3. Ref (b) outlines the schedule for disposal of records.

 --BuMed. Ross T. McIntire.

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